

**CITY OF DANVILLE
PROJECT DESCRIPTION
FY 2011 FIVE-YEAR CIP**

DEPARTMENT/DIVISION: Utilities/Electric Substations	PROJECT NAME: 25kV Voltage Conversion (PL # 60654)
PROJECT SCOPE: Reinsulate various line sections for operation at 25 kV	
CURRENT SITUATION: This project consists of seven subprojects. The project covers a large portion of DPL's remote low load density service territory to the east, west, and north. The lines in these areas have small conductors (#2 or #4 ACSR typically) with long tap-lines (4 to 9 miles) and high customer counts (70 to 140). Each of these areas has two sets of voltage regulators in place to maintain voltage within acceptable range. The traditional methods of reconductoring and multi-phasing lines to address growth and quality of service issues are not cost effective solutions at \$170,000 per mile. Re-insulating these areas to operate at 24.9/14.4 kV at \$10,000 to \$12,000 per mile is cost effective.	
HOW WILL THE COMPLETED PROJECT AFFECT THE CURRENT LEVEL OF SERVICE? Operation at 25 kV will improve the voltage profile, decrease load by one half, and reduce losses by one quarter; other operational benefits will be reduced operation and maintenance expenses due to newer and less equipment, and fewer outages due to better co-ordination and protection practices	
IS THE PROJECT MANDATED BY FEDERAL OR STATE REQUIREMENTS? IF SO, PLEASE PROVIDE DETAILS OF THE MANDATE: No	
IS THE PROJECT THE RESULT OF A CITY INITIATED STUDY OR PLAN? IF SO, PLEASE PROVIDE DETAILS OF THE STUDY OR PLAN: Yes. This project was recommended in the 2001 COD/Duke Engineering Strategic Plan Study.	
OTHER COMMENTS:	

Source of Funding	Proj. to Date	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
Current Revenues - Reprogrammed Funds	\$ 1,342,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,342,000
Bonds-General Obligation	-	-	-	1,500,000	1,600,000	-	3,100,000
Other	-	-	-	-	-	-	-
Total	\$ 1,342,000	\$ -	\$ -	\$ 1,500,000	\$ 1,600,000	\$ -	\$ 4,442,000

Project description by fiscal year:

Fiscal Year	Description
FY 2011	N/A
FY 2012	N/A
FY 2013	Hwy 610 Logtown area, Hwy 119 VIR Area, Phase 1 and 2 Hwy 360 Keeling area, Hwy 647 Axton area, Phase 1 Hwy41 Callands area
FY 2014	Hwy 622 Cascade area, Hwy 58 VIR Area, Phase 3 and 4 Hwy 360 Keeling area, Phase 2 Hwy41 Callands area, Hwy 58 Axton Area, Hwy 862/621 Area, Hwy 863 Berry Hill Area
FY 2015	N/A

**CITY OF DANVILLE
PROJECT DESCRIPTION
FY 2011 FIVE-YEAR CIP**

DEPARTMENT/DIVISION: Utilities/Electric Substations	PROJECT NAME: Pinnacles Transformer Replacement (PL # 60498)
PROJECT SCOPE: Upgrade and replace the existing 60-year old transformers located in the Pinnacles Hydro Substation at the generator power house.	
CURRENT SITUATION: The existing transformers are not able to handle the rebuilt generator capacities and run hot. The units are 60 years old and we test them annually to ensure that they are not in a condition of eminent failure. With our ability to sell power on the open market, we need to insure the operation of these transformers.	
HOW WILL THE COMPLETED PROJECT AFFECT THE CURRENT LEVEL OF SERVICE? The transformer replacements allow use of maximum generation and longer generating periods without the risk of a transformer failure, consequently increasing generating revenues.	
IS THE PROJECT MANDATED BY FEDERAL OR STATE REQUIREMENTS? IF SO, PLEASE PROVIDE DETAILS OF THE MANDATE: No	
IS THE PROJECT THE RESULT OF A CITY INITIATED STUDY OR PLAN? IF SO, PLEASE PROVIDE DETAILS OF THE STUDY OR PLAN: No	
OTHER COMMENTS:	

Source of Funding	Proj. to Date	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
Current Revenues - Reprogrammed Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bonds-General Obligation	-	1,500,000	-	-	-	-	1,500,000
Other	-	-	-	-	-	-	-
Total	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000

Project description by fiscal year:

Fiscal Year	Description
FY 2011	Replace old transformers
FY 2012	N/A
FY 2013	N/A
FY 2014	N/A
FY 2015	N/A